Journal of Education and Practice
ISSN 2222-1735 (Paper) ISSN 2222-288X (Online)
Vol.9, No.2, 2018
www.iiste.org

Examining the Montessori Model of Early Childhood Education in Ghana: The Gap between Policy and Practice

AHMED ABDULAI
Department of Early Childhood Education, University of Education, Winneba

Abstract
The study is a quantitative research of the survey type that sought to investigate the extent to which principles and practices of the Montessori model of Early Childhood Education are adhered to by some selected early childhood centres in the Kumasi metropolis of the Ashanti region of Ghana, West Africa. Using a purposive sampling approach, sixty-one early childhood educators in six Early Childhood Centres from the study area volunteered to participate in the study. Three issues were investigated in the study; a determination of participants qualifications to teach using the Montessori model, scheduling and time use within the framework of Montessori education, and materials and activities used for teaching and learning. Results emanating from the study pointed to the following among others; most participants engaged in the study were not trained in Montessori education, scheduling and time use were deemed as unsatisfactory, children sometimes chose whether to participate in individual lessons and presentations, Montessori materials were sometimes used but not frequently, and also class sizes relative to teacher-pupil ratios were large. Participants also revealed that among the hindrances that affected the effective implementation of the Montessori model were the lack of teacher training, and parental concerns and demands. Among some recommendations provided were; the need for teacher training of educators interested in the Montessori model of education, the need for establishing peer-reviewed Montessori associations or organizations tasked with ensuring compliance to the Montessori model of early childhood education, and a call to tailor any form of educational model such as the Montessori type to reflect and carry on board the unique socio-cultural practices of that area.
Keywords: Early Childhood Education, Montessori Education, Teacher Qualification, Scheduling and Time Use, Materials and Activities.

INTRODUCTION

Early childhood education is recognized and presented as the foundation for successful educational development for all children across the globe (Carter, 1987). Education at the early years is described and posited as the bedrock upon which sound and excellent basic education is built. The recognition of early childhood education being the foundation for successful educational development of the child is acknowledged and upheld by the Ghanaian people of the West African sub-region, and as a result serves as the starting point of mainstream formal education in Ghana.

In the year 2004, based on the recommendation of a presidential review committee on education (Ministry of Education; Ghana, 2002), early childhood education became part albeit the starting point of mainstream basic education in Ghana. This development led to the inclusion of kindergarten education to public primary institutions, with most private institutions engaged in other aspects of early childhood education; for example, creche and nursery as well as kindergarten education. It is worthy of mention that this development led to the springing up of different early childhood centres across the country premised on an increasing number of different early childhood educational models. One of such models that has gained prominence and attraction in Ghana is the Montessori early childhood education model.

Montessori education is hinged on the idea that children are effective in learning when information provided them is developmentally appropriate (Ryniker & Shoho, 2001). That is, the Montessori model of early childhood education recognizes and champions the different ability levels of children, and as a result emphasizes that children should be allowed to choose their activities based on their capabilities (Pickering, 1992). The Montessori education model is seen as different from traditional early childhood education because it has to meet the needs of all children based on the teacher to pupils' ratios as well as, curriculum being entirely hands on approach. Among some practices of the Montessori model are; sewing, knitting, setting of table, zipping, and mostly practical oriented approach to learning (Montessori, 1966). The fundamental difference between Montessori early childhood education and that of traditional public education as observed by Debs and Brown (2017) with reference to the United States of America is, whiles traditional public schools are characterized with strict discipline, and authority emanating from the teacher in a regimented, standardized format, children at Montessori public schools on the other hand work at their own pace on sequential lessons, and that learning based on the Montessori model is individually tailored. The observations by Deb and Brown though emanating from the United States of America are applicable and useful to the Ghanaian early childhood educational experience.

Informed by the above, this study deems it necessary to embark on a scientific enquiry on the extent to which early childhood centres that profess to be engaged in the Montessori early childhood educational model adhere to

the tenets and practices of such a program. That is, the study aims at determining if practitioners of the Montessori early childhood educational model implement the model in a manner that is consistent with the philosophical foundations that shapes that model. In doing this six Early Childhood Education Centres in the Kumasi metropolis of the Ashanti region of Ghana agreed to participate in this study.

The quest for undertaking this study is informed by the limited and/or lack of research in the area of evaluating Montessori educational practices in Ghana. It is anticipated that findings emanating from this study would be a step towards defining ideal criteria for the Montessori model of early childhood education as well as making a determination of what kind of Montessori program can be considered to be a valid program in Ghana. Such a determination would bring to bear the existence of any gap between what is professed as a Montessori model of education (Policy), and what is really happening on the ground (Practice).

LITERATURE REVIEW

Literature review relative to the topic under discussion is done in the area of what constitutes the Montessori model of education, the place of the teacher in the Montessori model of education and benefits associated with it. Challenges that characterises the model's implementation are also reviewed.

Komolafe, Yara, and Omitogun (2015) argue, that the underlying philosophical orientation behind the Montessori model of education is that human beings are innately bound for benevolence and their main aim is for self-realization. This means every child has a uniqueness for self-development and this should be done in line with the unique abilities and capabilities of the child. For Dr. Maria Montessori, children have the natural tendencies to explore and understand their natural world and this should be encouraged through the use of the direct sensory experiences of children (Gargiulo & Kilgo, 2012). The uniqueness of each learner and the individual child for that matter is ingrained in the Montessori approach to teaching and learning such that individualized curriculum, compatible to children understanding notwithstanding their abilities is what is prescribed as the ideal form of education by Montessori (Cossentino, 2010).

The curriculum of the Montessori model of education according to McKenzie and Zascavage (2012) is one that is individualized aimed at meeting the unique needs of each child. According to the authors, the curriculum is structured such that it offers children a three-year span from introductory activities through advanced materials and concepts. The individually structured nature of the Montessori curriculum is reiterated by Golbeck (2001) who states, that Montessori curriculum always aims at offering learners individually paced activities in a non-competitive environment. The individual nature of Montessori curriculum as well as the individualized philosophical ideas that shape the Montessori model of education calls for small class size (Bobo, 2012). Some of the subjects taught at Montessori early childhood centres according to Lillard (2013) are; Maths, Language, Science and Geography, Practical Life, and Art. With regards to Practical Life as a subject, Lillard argues that activities should be culturally relevant such that learners engage in activities such as gardening, sewing, knitting, table setting, polishing, zipping, and cleaning.

Montessori early childhood centres are distinct from traditional early childhood classrooms as stated by Haines (1995). One of such distinguishing features according to Haines is that Montessori programs are devoid of textbooks, worksheets, tests, grades, punishments or rewards. Again, in the area of how distinct Montessori programs are; Chattin-McNicholas (1992) opine, that whiles Montessori classrooms are characterized with cooperation, traditional classrooms are based on competition. Also, Lillard and Else-Quest (2006) indicate, that whiles Montessori classrooms are characterized with mixed-age groups geared towards individualized learning, conventional programs are structured with teacher directed activities. Clearly, the modus operandi of Montessori education is to afford the child the freedom to act and work at his/her own pace. This assertion is supported by Orem (1965) who state, that Montessori education is one of spontaneity with the aim of providing the child the freedom to move in a prepared environment tailored towards encouraging self-development.

The teacher under the Montessori education model according to Crain (1992) does not direct learning, instead, respects the efforts of learners towards independent mastery. For Maria Montessori, the task of the teacher is not to talk but to prepare and arrange series of motives for cultural activity in a special environment made for children (Montessori, 1966). The teacher is described as a "guide", and one that plays the role of an observer, assessor, and a model while working in the classroom (Cossentino, 2010). The job of the teacher under this model, according to Cossentino is to place him/herself at an unnoticeable place in the classroom while guiding learners to engage in learning activities. Unlike traditional classrooms where lessons are teacher directed with punitive actions, for Hainstock (1997), the Montessori teacher ensures that lessons are individualized with the child intrinsically motivated to work such that he/she sees mistakes as acceptable, and with an opportunity for self-correction. Again, Bobo (2012) points to a unique trait of Montessori school setting being one-on-one attention received by learners from teachers. Classrooms in Montessori schools according to Bobo are usually taught by two teachers with a third known as "rover" who always monitor activities in the classroom.

Benefits associated with Montessori education as revealed in the literature abounds. In some of the literature, Montessori education is presented as one that is particularly effective for learners in the area of fostering

development of executive functions such as self-discipline, critical thinking, and problem solving (Diamond & Lee, 2011). This observation is corroborated by Lillard and Else-Quest (2006), who report of evidence of typically-developing learners gaining academic and social skills through Montessori education. Montessori education is also credited with fostering learners' autonomy, competence, responsibility, problem-solving, and adaptive citizenship skills (Shivakumara, Dhiksha, & Nagaraj, 2016).

The literature also presents Montessori learners performing better than learners in traditional educational programs. For example, in a study by Duax (1989), the author indicates in the study's findings of Montessori learners having a higher level of intrinsic motivation for learning and achievement than their traditional school counterparts. Similarly, Badiei and Sulaiman (2014) also present findings that revealed learners' in a Montessori curriculum having a higher score in cognitive, social and language development than those in public kindergarten schools. In addition to these stated benefits, Montessori education is also posited as being consistent with the constructivist approach to early childhood education by Amabile and Hennessey (1992), who argue that it is child-centred and aids at encouraging and advancing creativity on the part of learners.

Notwithstanding the seemingly associated benefits of Montessori education as presented above, the literature also presents a number of challenges in its implementation. One of such is the lack of practical knowledge on the part of practitioners in implementing the Montessori model of early childhood education (Rambusch, 1962). For instance, in a survey of Montessori schools at America, Povell (2009) reveals that of the number of Montessori schools that were operating at the time of the study, just about only 20% were formally associated with an official Montessori sanctioning body. The lack of training and practical knowledge of Montessori programs on the part of teachers engaged in Montessori education has been of concern in its successful implementation (Vettiveloo, 2008).

In addition to the above challenges, there are also concerns of difficulty on the part of practitioners to purge themselves of their personal beliefs which in most cases is at variance with what Maria Montessori teaches. Teachers according to Duax (1989) often teach what they think is a Montessori model of education when in actual fact what is being taught is not in line with the tenets of Montessori principles. The problem of making Montessori education culturally relevant is also an identified challenge to Montessori educational implementation. This observation is evidenced in a study by Schonleber (2011), where the author documents the challenge of integrating the Montessori approach to Hawaiian language and culture-based immersion programs.

In summary, the literature review presents a number of thematic issues among which include the following:

- The Montessori educational model is premised on the recognition of individual learner's abilities and development, and as a result requires the teacher to guide the learner on a one-on-one basis towards realizing his/her potential.
- Montessori educational programs differ from traditional schools such that the former places emphasis on cooperation and individual learning whiles the latter is built on regimented and strict learning, as well as rewards and punishments.
- The teacher under the Montessori model is described as a "guide" who facilitates learning.
- Benefits associated with Montessori education include but not limited to; cognitive development, social skills development, problem solving skills, and critical thinking skills.
- Implementation of Montessori model of education stands challenged due to the lack of training and knowledge on the part of most practitioners of early childhood education in the area of Montessori practices, and also the difficulty in situating Montessori ideals to unique socio-cultural environments.

Guided by the above themes the study proceeds to address the following research questions:

1. To what extent do early childhood educators in the Kumasi metropolis qualify to teach using the Montessori model of early childhood education?
2. To what extent does practices of early childhood educators within the Kumasi metropolis adhere to the principles of Montessori education?

RESEARCH METHODOLOGY

This study is a survey research with a quantitative paradigm where 61 Early Childhood Educators consisting of 53 females and 8 males who teach at 6 different early childhood centres in the Kumasi metropolis in the Ashanti region of Ghana volunteered to participate. Selection was through the purposive sampling approach because participants had to be early childhood educators, and also centres where they teach have to use the Montessori model of education. Prior to contacting participants, letters were sent to a number of schools engaged in Montessori education within the study catchment area stating the motive of the study and objectives that shaped it. In all 6 schools responded indicating their preparedness to participate in the study. All 6 schools are private Early Childhood Centres and each has Montessori as part of its name. For the sake of anonymity and also granting the request of the centres, the names of the centres are not provided in this study.

The instrument for data collection was a researcher developed questionnaire based on 3 attributes; participants demographic details, scheduling and time use, and materials and activities used at the different early childhood centres. In all 46 items constituted the questionnaire of which some were Yes and No responses, multiple choice

responses, responses based on rating scales, and general comments. Participants demographic details sought to elicit responses from practitioners in the areas of gender, age, how long practitioners have been teaching, level of education, certification in Montessori training, and affiliations to Montessori associations. The purpose of this set of questions was to determine if participants had the requisite qualification to teach the Montessori model as sought to be addressed by research question 1 of this study.

The remaining 2 attributes of the questionnaire as stated above centred on scheduling and time use, and materials and activities used at the various participating centres. In the area of scheduling and time use, questions centred on class sizes, number of teachers to a class, class time scheduling, manner of snack breaks (groups, individually, or both), manner of learner's work period, learners circle time, and whether learners are allowed to choose their own work? Also, questions in the areas of materials and activities used at the participating Early Childhood Centres were in the areas of; the kinds of materials used during lessons, the extent to which educators modified their classrooms to reflect Montessori practices, the age groupings of learners, and the extent to which the principles and practices of Montessori education were adhered to in their respective schools. These aimed at providing answers to research question 2 of the study.

In all, the questionnaire was administered to 75 respondents with 61 return rate. Completed copies of the questionnaires were retrieved a week after distribution. It is instructive to state that prior to the development of the questionnaire a pilot study of four early childhood educators and two attendants was conducted at a Montessori early centre located at Kasoa at the Central region of Ghana relative to the subject under discussion; principles and practices of Montessori model of early childhood education. Results emanating from the pilot study revealed a disconnection between what is proposed as best practices of the Montessori model of education as provided in the literature, and what is practiced at the centre. Hence, an extension of the study to the six schools in the Kumasi metropolis.

In addition, it is also important to state that the questionnaire that guided this study was validated based on a review of two senior faculty members of the Faculty of Educational Studies of the University of Education, Winneba. Data was analysed using a self-developed rating scale where frequencies of responses, mean, range and percentiles, were made use of throughout the analysis process. Again, bar, pie and line charts were presented in other to give a pictorial understanding of the analysis. Ethical considerations such as anonymity of participants, permission and approval from heads of the centres before the conduct of the study, making available findings of the study to participants before publication, were all agreed upon, and adhered to.

RESULTS AND FINDINGS

Findings of this study relative to research question 1 shows that majority of participants are Senior High School Graduates (SSSCE) (N: 31) with a few Advanced Degree holders (N: 8). The clustered bar chart below (Figure 1) depicts the level of education of participants involved in this study. Individuals whose highest level of education is SSSCE with a frequency of 31 out of 61 individuals responded to the exercise.

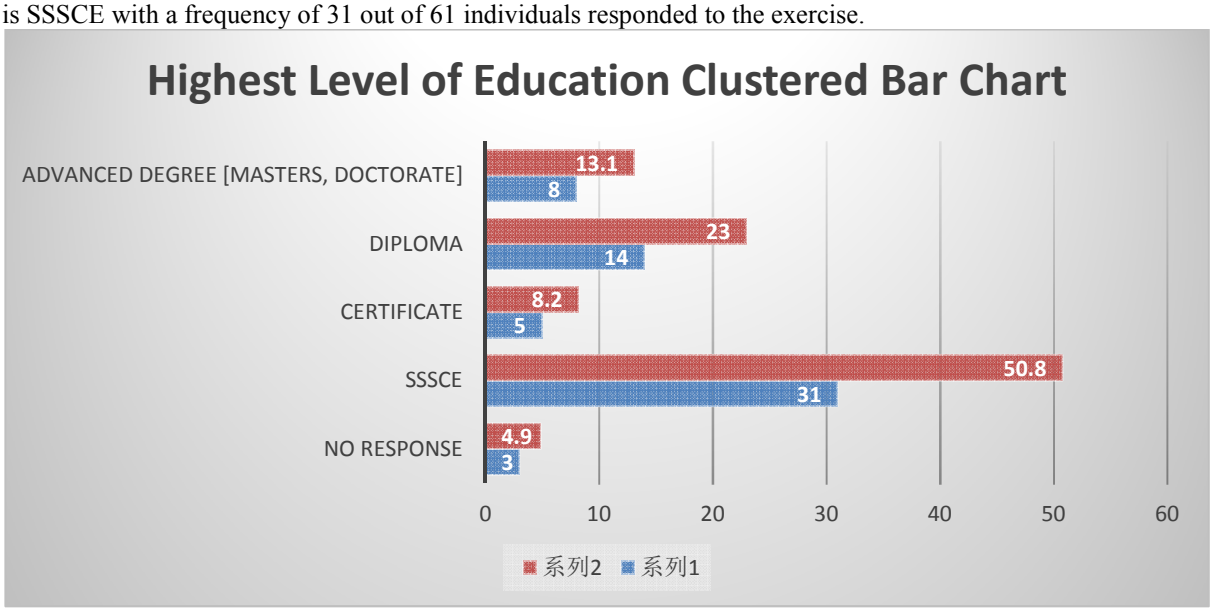

Figure 1: Level of Education of Participants

In the area of qualification to teach using the Montessori model on the part of participants, it is clear from the line chart below (Figure 2) that most of the respondents do not have Montessori Early Childhood Certificate. However, those who are willing to obtain the certificate seems significant.

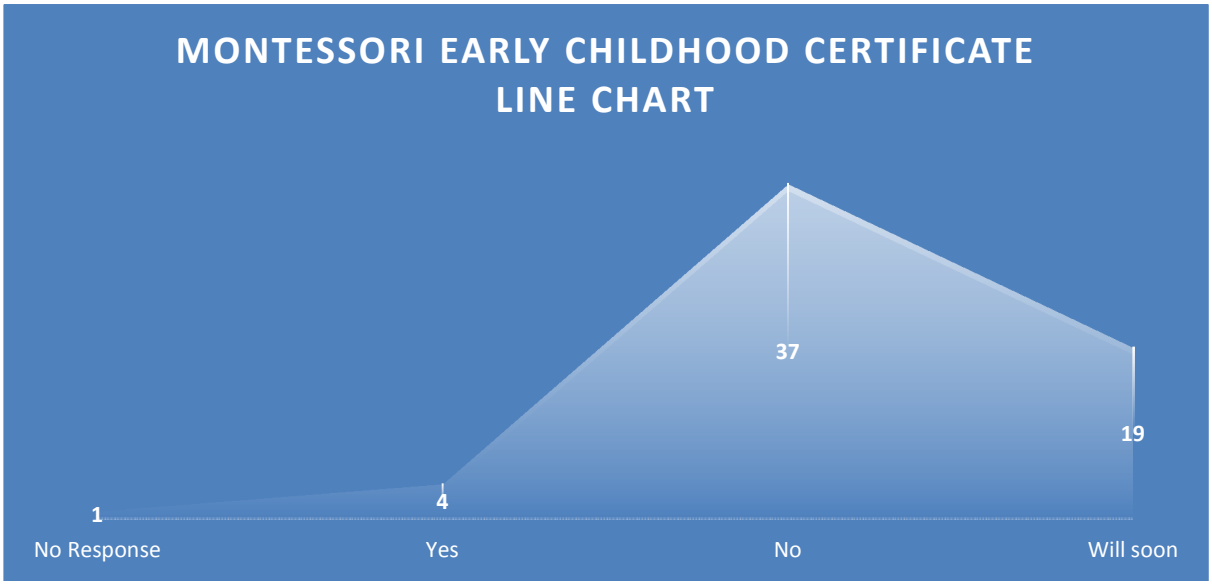

Figure 2: Qualification to teach using Montessori Model

Also, it is evident that most respondents as provided in Figure 3 didn't respond to the year their Montessori Certificate was granted. This is an affirmation of most respondents not having Montessori certificates.

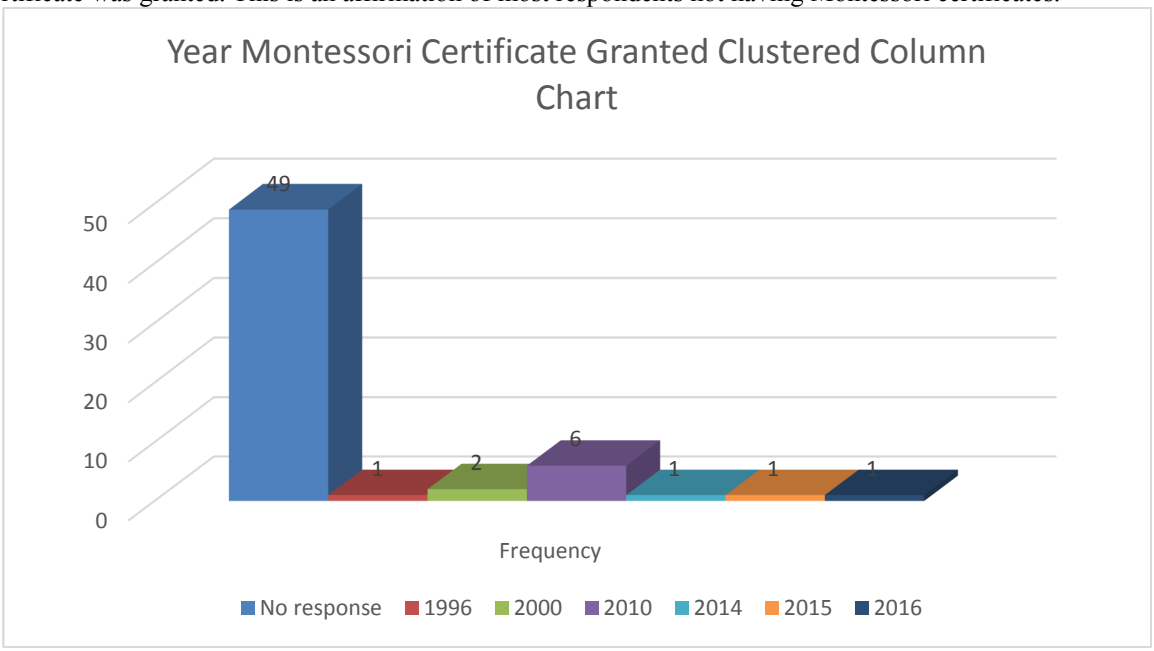

Figure 3: Response to Year Montessori Certificate was Granted

The above conclusion is further validated by responses of participants in Figure 4 which points to majority of respondents (59%) not being affiliated or associated to any Montessori association.

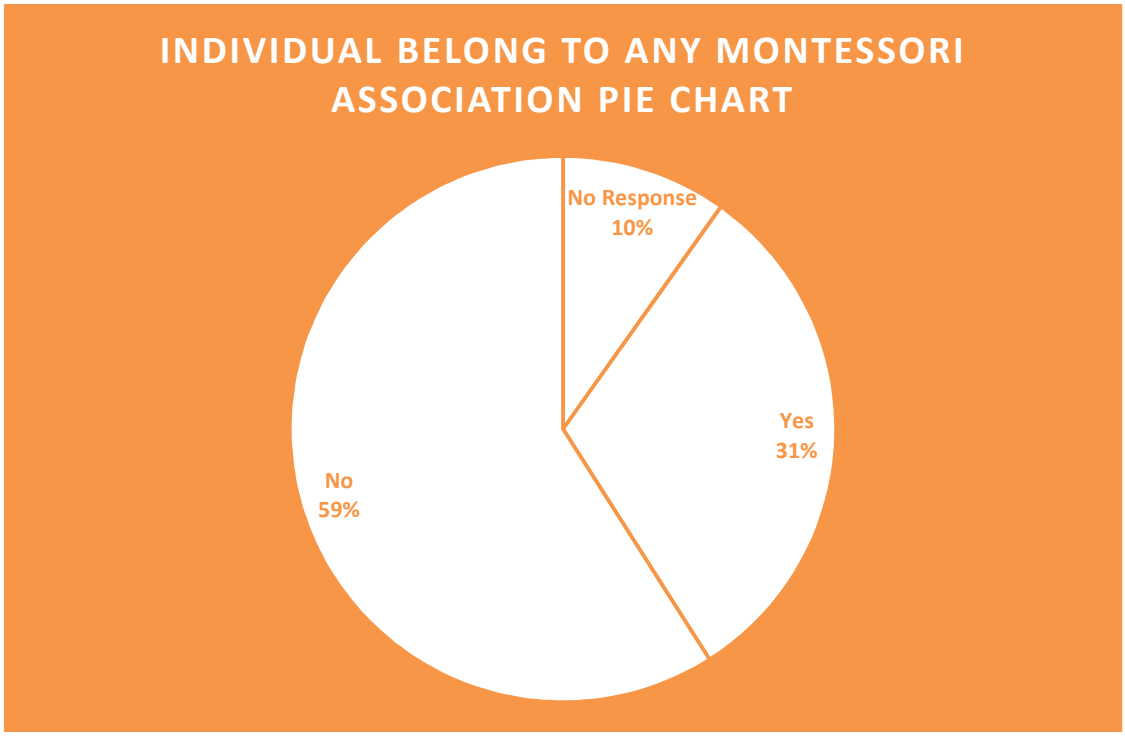

Figure 4: Affiliation to any Montessori Association

In fact, it is not only the case that most participants in this study are not certified in Montessori training but also, their responses as evidenced in Figure 5 points to the lack of any Montessori regulatory body at their localities.

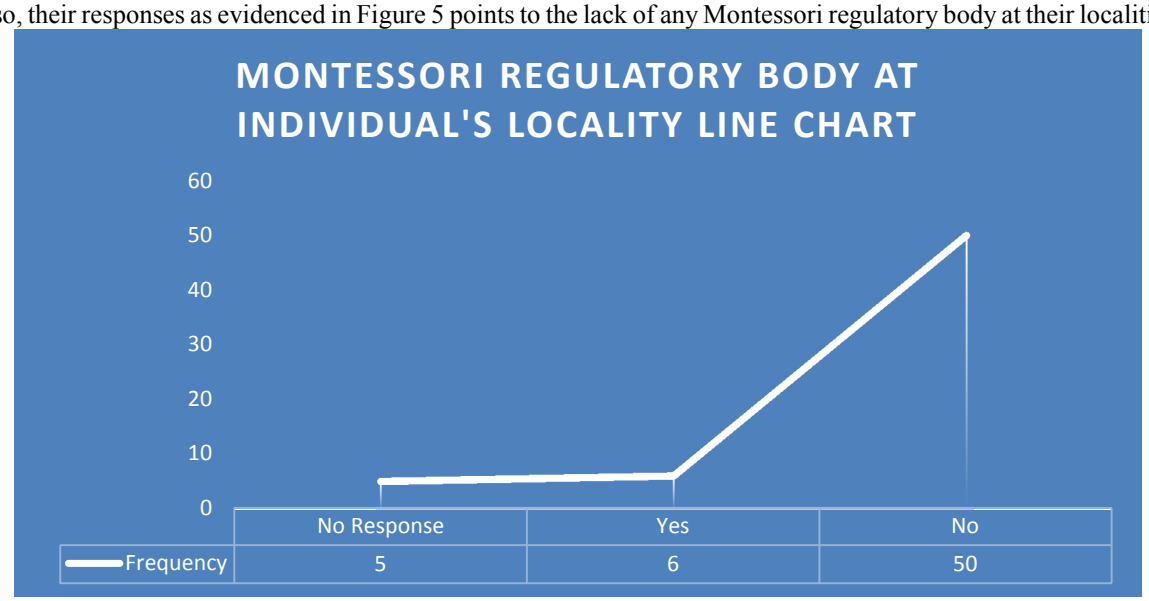

Figure 5: Response to Availability of Montessori Regulatory Body

Clearly, a summary of responses by participants relative to their qualification to teach using the Montessori model of education shows that majority of participants in this study do not only lack the basic requirement of teaching at the early childhood level in Ghana; a Diploma in early childhood education, but are also untrained in Montessori education. These findings are in line with what some of the literature presents on this subject (see; Povell, 2009., Vettiveloo, 2008).

In the area of practices and activities of the Montessori concept of education by participating Early Childhood centres of this study, responses by respondents as presented in Figure 6 shows that scheduling and time use in Montessori early childhood education implementation practices response from participants was not satisfactory. On the scale of 1-3, respondents felt that only some children work together to some extent. On the average, not all children choose the activities they will work with during the work period. It was made point clear from respondents the choice for a child to participate in circle time is unsatisfactory.

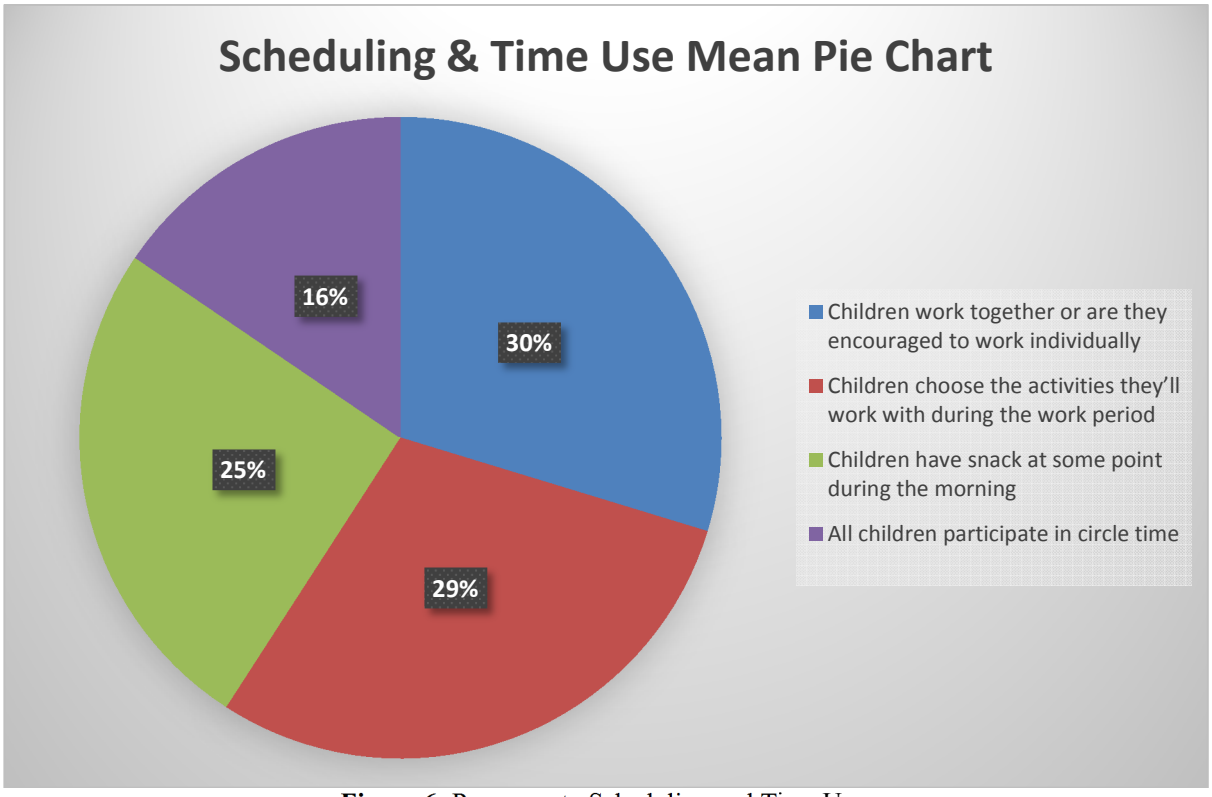

Figure 6: Response to Scheduling and Time Use.

In the area of materials and activities used at the participating centres, respondents report indicates that children to some extent choose whether to participate in an individual presentation or lesson with a score of 1.95. Respondents generally agreed that Montessori materials or extensions, such as the metal insets or matching the colour tablets to a set of objects were sometimes but not frequently introduced during circle time. Again, it was also observed that children were not provided with store bought workbooks or worksheets. Additionally, children were not permitted to combine certain materials, such as the sensorial materials (See; Figure 7).

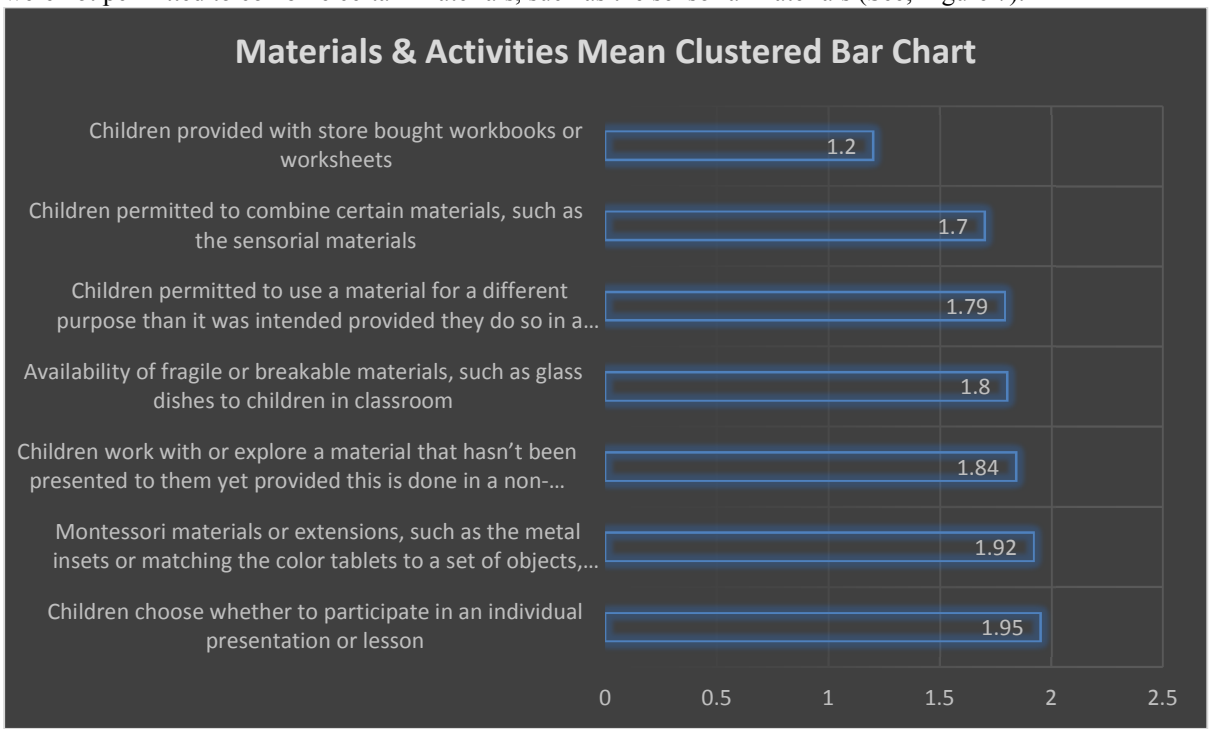

Figure 7: Response to Materials and Activities

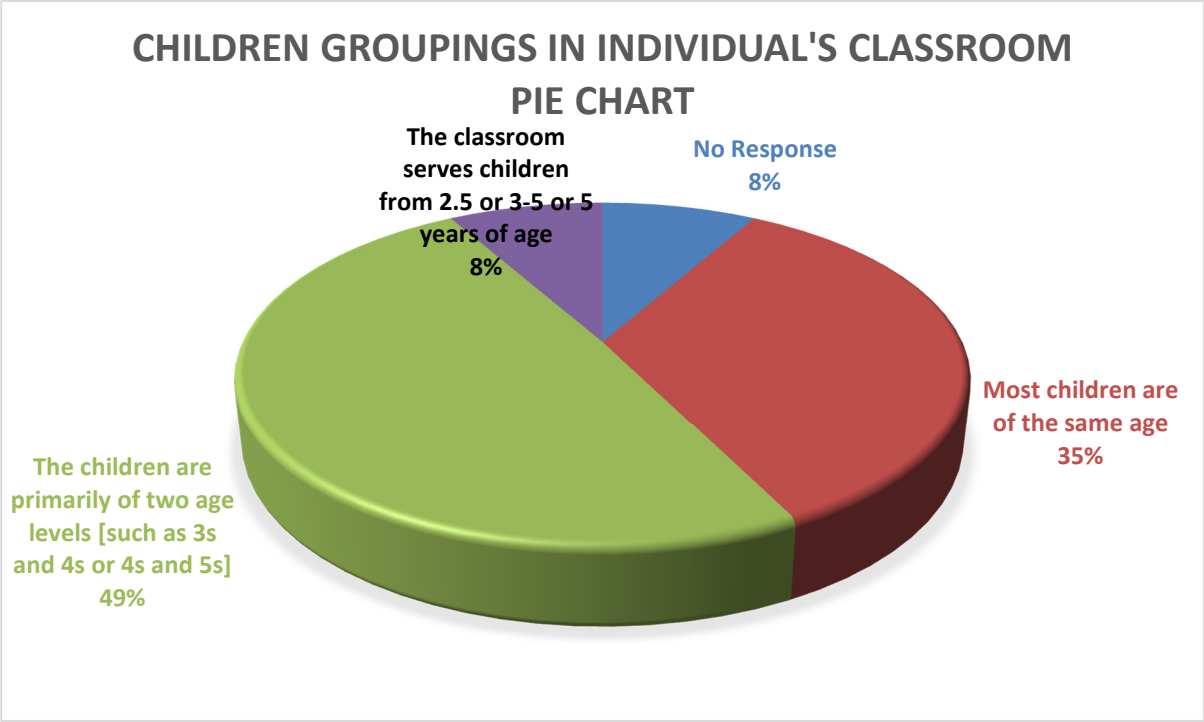

Figure 8: Response to how Children are Grouped in Class

In the area of how children are grouped the data above (figure 8) gives a clear picture of how children are grouped in individual's classroom. 30 respondents representing 49.2% felt that children groupings are primarily of two (2) levels while 21 respondents (35%) felt most children of the same age are grouped together. Again, it is also evident in Figure 9 that most respondents generally agreed they have intentionally modified Montessori educational practices in their classrooms. However, the evidence to this effect was not provided in the findings of the study.

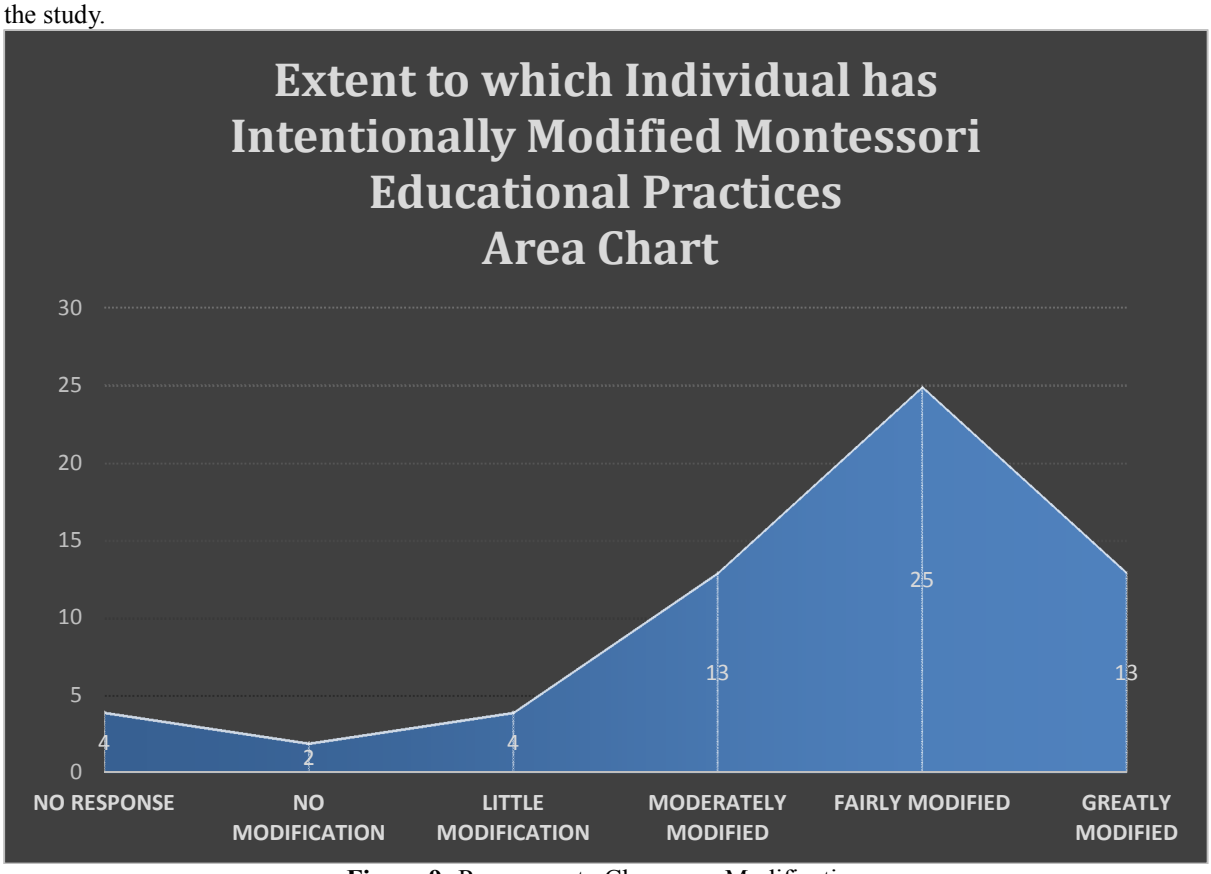

Figure 9: Responses to Classroom Modification.

Responses by participants in the area of class sizes showed bigger class sizes at the different centres. Using the range as the statistical instrument for analysis, most respondents as evidenced in Figure 10 fall within the class size of 21-30 children. This is followed by the class size 51-60 children.

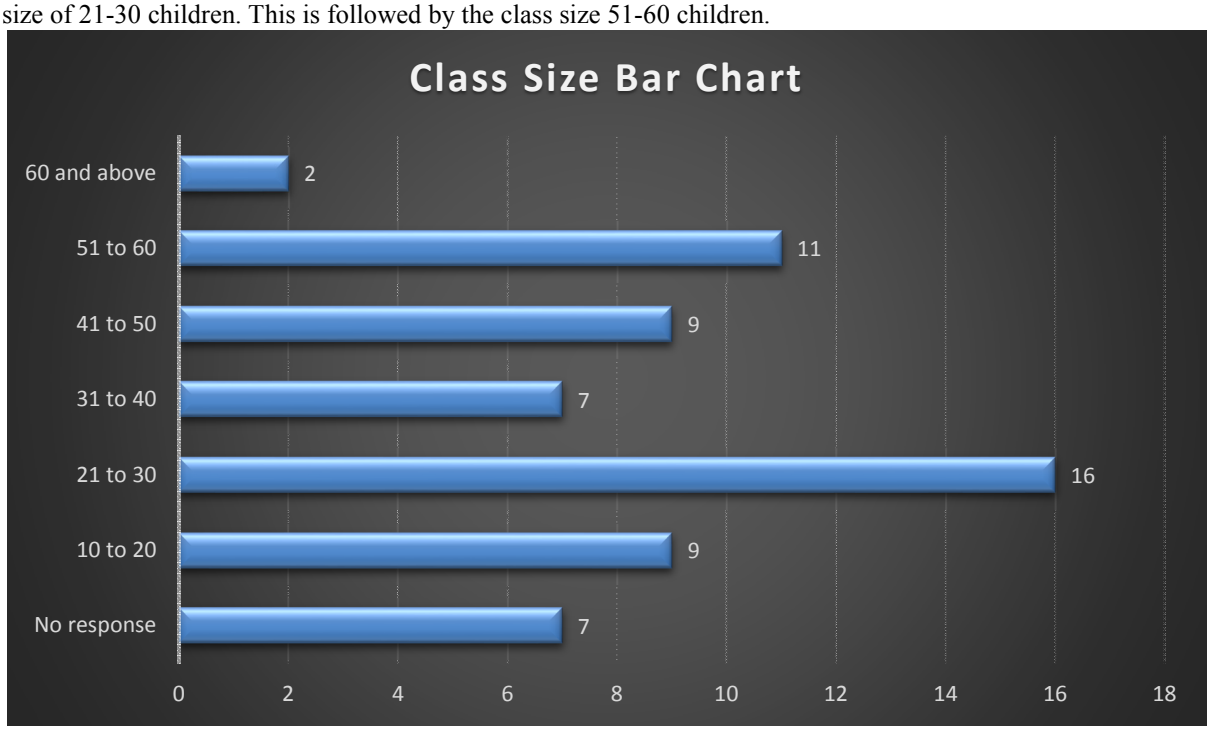

Figure 10: Range of Class Size

In the area of how many teachers teach in a classroom, frequencies obtained from respondents as provided in Figure 11 indicated that 37 respondents have 2 teachers that usually teach in individual's class including individual. 10 respondents representing 16.4% also said they have 3 teachers that usually teach in individual's class.

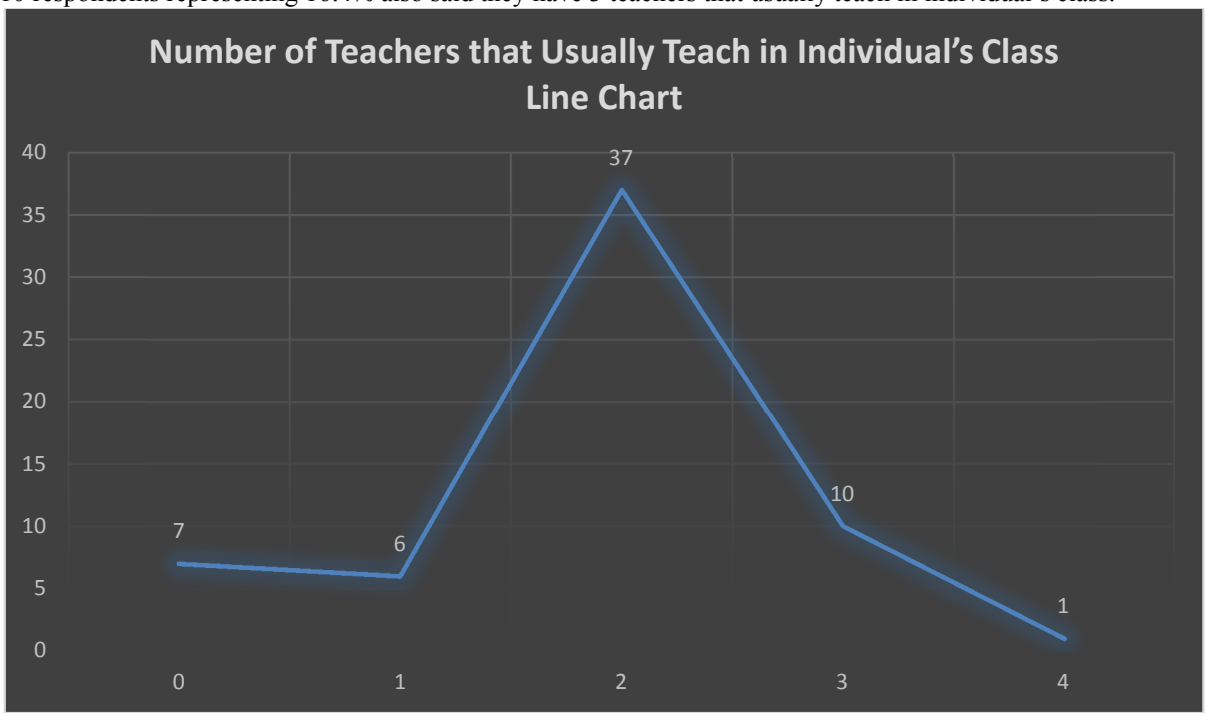

Figure 11: Number of Teachers that usually teach in Individual's Class

Still on the question of activities and practices, participants also provided responses to the extent to which in their estimation their practices were in agreement with practices associated with Montessori education. The average score for this category was 2.81 indicating respondents fairly agreed with the practices associated with Montessori Education. Respondents generally agreed that it was ideal to give initial material presentations to individual children (rather than to the whole group). They were also positive that it was a good idea to provide

children with a full range of Montessori materials, activities, and extensions rather than play or other supplemental activities during the work period. However, they had few disagreements with the practices associated with Montessori education. These included; having a mixed age group of children spanning at least 3 years, permitting children to choose whether to work with others, when to have snack, when to participate in lessons and circle time, and when to provide children with a 3-hour uninterrupted work period. These responses are provided in Figure 12 below:

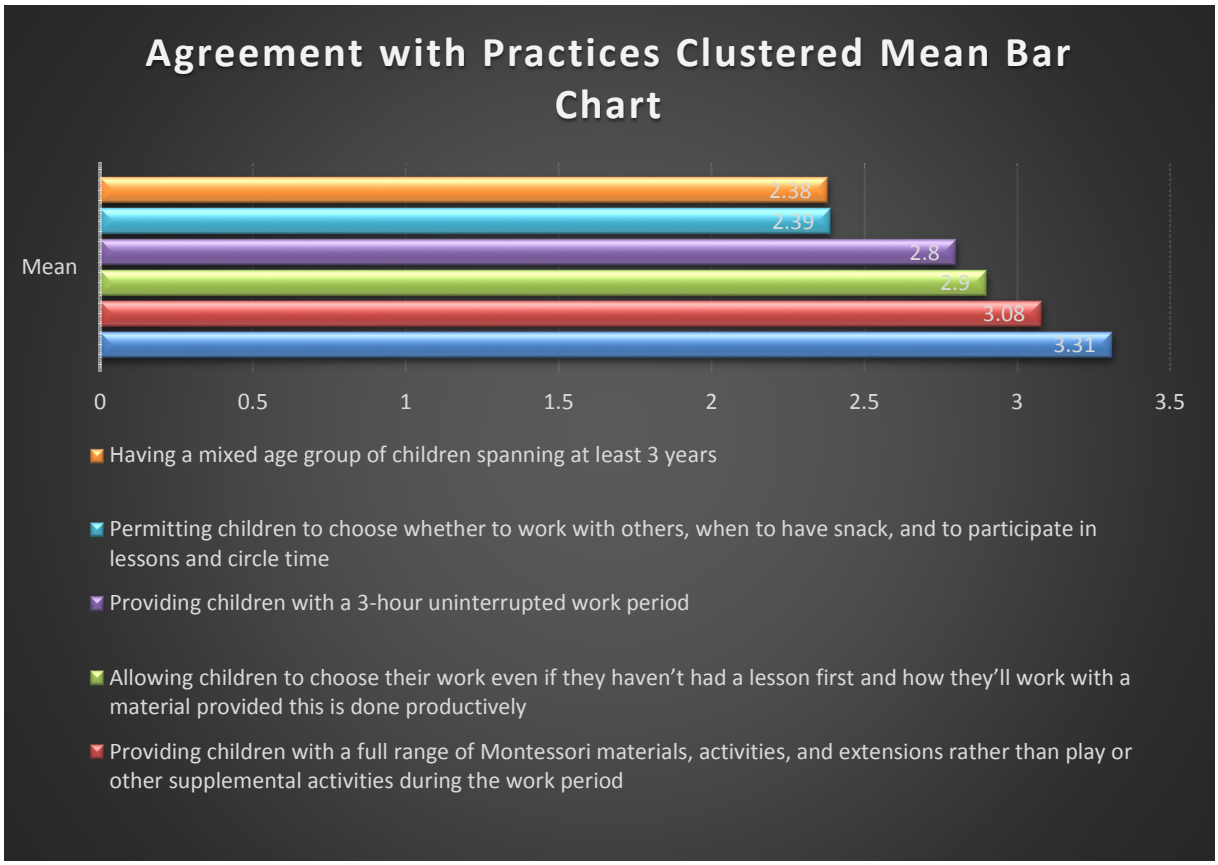

Figure 12: Agreement with Montessori Practices

Finally, participants responded to factors that in their estimation served as hindrances to the successful implementation of the Montessori educational model at their respective schools. Generally, responses as provided in Figure 13 points to respondents not satisfied with this section – the average score was 2.56. Respondents greatly felt that parents' concerns and demands are the greatest situational circumstance that have impacted them to implement the Montessori Approach the way they ideally would. On the average, they also agreed that lack of training in Montessori program and limited resources or funding were other situational circumstances. Despite these feedbacks, respondents also felt that lack of planning or preparation time, and children with behaviour problems or special needs were of minimal extent with respect to the situational need.

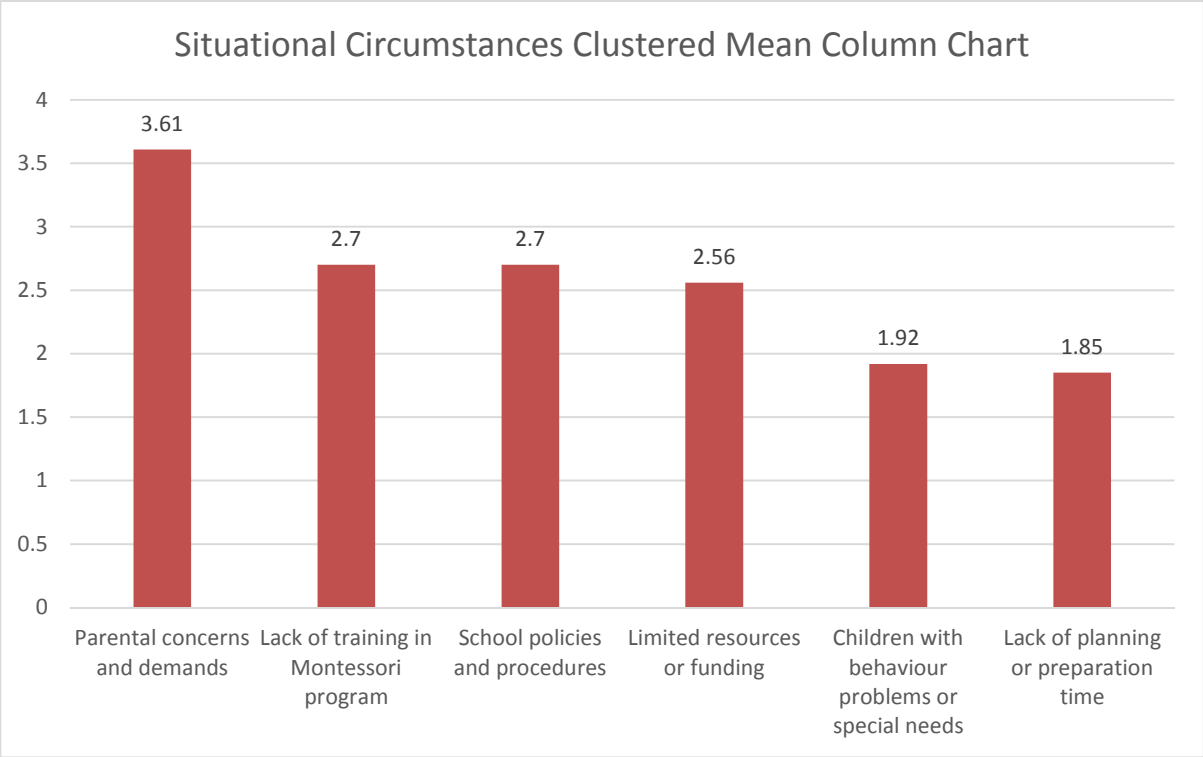

Figure 13: Situational Circumstances that hinder the Successful Implementation of the Montessori Model of Education.

Responses by participants in the area of activities and practices at participating early childhood centres reveal that though participants do acknowledge the uniqueness of the Montessori model relative to early childhood education as evidenced in the number of teachers to a class, the use of Montessori materials, allowing learners to choose what they want to learn, and the use of circle time among others, these notwithstanding, it is clear by the study findings that most practices do not conform to the Montessori model. Indeed, the teacher to pupil ratio is indicative of large class size which undoubtedly may not foster one-on-one interactions between teachers and learners which undeniably is an important platform for Montessori education. This conclusion is reaffirmed by responses of participants in the area of hindrances to effective implementation of the Montessori model. Hence, in answer to research question 2, early childhood centres who participated in this study do not adhere properly to the tenets of the Montessori model of education.

CONCLUSION

The overall objective of this study was to investigate the extent to which some selected early childhood centres engaged in the Montessori model of early childhood education in Ghana work in accordance with the principles and teachings of how early childhood education should be administered under that model. In this direction, and guided by two research questions, the study sought to determine the levels of qualifications of participants of this study in the area of basic early childhood qualification, and also more importantly certification in Montessori education. In addition, the study further sought to determine what pertains at the participating early childhood centres of this study relative to best practices of Montessori education.

The conclusion of this study, thus emanating from the findings of the study is that with both questions; that is qualification, and activities and practices of early childhood educators of this study, most participants could not teach the Montessori model because they lacked the needed qualification in that field, and also activities undertaken definitely are not in line with what is professed by Maria Montessori. These findings do not contradict what the literature that guided this study says. These results corroborate the position of Blount (2007) who argues, that in most occasions as "Montessori" not being a trademark term, a number of schools claim to be Montessori where in actual fact they rarely learn using Montessori ideas. Indeed, the lack of regulatory Montessori bodies in most of the participating schools of this study, with most participants not being affiliated to any Montessori association, and most importantly participants penchant to remodel teaching and learning to suit their own understanding as revealed in this study's findings, all point to the lack of a valid Montessori education in the study area. Hence, it can be conveniently concluded, that there is a gap between Policy and Practice as sought to be determined by this study when it comes to Montessori education in the Kumasi metropolis of the Ashanti region of Ghana.

Indeed, it is instructive to state that limited as this study may be, especially in scope it has however succeeded in bringing to the fore what pertains at the early childhood sector in the area of implementing a model that has gained a lot of attraction in a country that have shown demonstrable evidence of commitment to early childhood education; Ghana. The findings of this study guided by the accompanying literature provides evidence to the limitless benefits associated with Montessori early childhood education, how different it is from traditional early childhood education, and most especially challenges in its successful implementation. There is enough proof of interest and commitment of participating early childhood centres of this study in the Montessori early childhood educational model as provided in responses of participants. However, results in the areas of qualifications, activities, and materials, as well as happenings at the different participating centres leads to the conclusion that the Montessori model of education as practiced by most of these centres cannot be described as valid. Though unfortunate, these findings provide stakeholders involved and interested in the Montessori early childhood educational model a snapshot of any discrepancy represented as gap between what guide the Montessori early childhood educational model (Policy), and what is happening at the centres (Practice).

RECOMMENDATIONS

Based on the forgoing conclusion, and also informed by the findings of this study, it is recommended that any attempt or interest in the Montessori early childhood educational model must first start with an understanding and appreciation of what constitutes this kind of educational model, and this will involve and should be shaped by educating early childhood educators involved in this type of education (Kahn, 1993). Such a program will not only require Montessori certification but also basic training in early childhood educational practices. This call is extremely necessary within Ghanaian context in light of evidence of a limited number of qualified early childhood educators in the country (Asemanyi & Wunku, 2007).

In addition, Montessori early childhood educators need to forge towards the establishment of peer reviewed accredited associations or organizations tasked with the responsibilities of ensuring that participants conform with the teachings and ideas of Dr. Maria Montessori in its proper shape and form.

Again, there is also no doubt that the socio-cultural dynamics of the environment that informed the inception of the Montessori model of education is unique and different from other areas that it might be implemented. As a result, any attempt in its implementation in any environment different from where it originated will require a readjustment of the program to suit the unique environmental traits of where the program hopes to be implemented. Hence, informed by the position of Ladson-Billings (1995), it is also recommended that any form of Montessori early childhood education in Ghana should be one that is built on incorporating the unique socio-cultural dynamics of the country in how the program is implemented. This call does not in any way suggest substituting the principles that guides the Montessori model, instead materials and activities should be tailored and fashioned to take on board learners home cultures.

REFERENCES

Amabile, T. Y. & Hennessey, B. (1992). The Motivation of Creativity in Children. In A. Baggiano & T. Pittman (Eds.). Achievement and Motivation: A Social -developmental Perspective (Pp.54-74). Cambridge: Cambridge University Press.

Asemanyi, E.T., & Wunku, D. V. (2007). The status of Early Childhood Care and Development in Aboadze-Aboazi Township, Ghana. *International Journal of Educational Research.* Vol. 3(2): Pp 237-248.

Badiei, M. & Sulaiman, T. (2014). The Difference Between Montessori Curriculum and Malaysia National Preschool Curriculum Development Skills of Preschool Children in Kuala Lumpur. *Brit. J. Edu., Soc. Beha. Sci.*, Vol.4 (10). Pp.1372-1385.

Blunt, B. (2007). Why Montessori Works. *Montessori Life*, Vol 1. Pp.84-91.

Bobo, L. (2012). History of the Method. MONT 601: Foundations and Theories of Montessori Education. Lecture Conducted from Westminster College, Salt Lake City, UT.

Carter, D.P. (1987). Early Childhood Education: A Historical Perspectives in J. L. Johnson (Eds.). Approaches to Early Childhood Education. Columbus, OH; Merrill Publishing Co.

Chattin-McNicholas, J. (1992). Montessori Programs in Public Schools. ERIC Digest, EDO-PS-7.

Cossentino, J. (2010). Following all the Children: Early Intervention and Montessori: *Montessori Life*. Vol. 22 (4). Pp.38-45.

Crain, W. (1992). Theories of Development: Concepts and Applications (3rd Ed.). Upper Saddle River, NJ: Prentice Hall.

Debs, M. C. & Brown, K. E. (2017). Students of Colour and Public Montessori Schools: A Review of the Literature. *Journal of Montessori Research*. Vol. 3 (1). Pp.1-15.

Diamond, A. & Lee, K. (2011). Interventions Shown to Aid Executive Function Development in Children 4-12 Years Old. *Science*, Vol. 333. Pp. 959-964.

Duax, T. (1989). Preliminary Report on the Educational Effectiveness of a Montessori School in the Public Sector.

The NAMTA Journal, Vol. 14 (2). Pp. 56-62.

Gargiulo, R. M. & Kilgo, J. L. (2012). An Introduction to Young Children with Special Needs: Both through Age Eight (4th Ed.). Pp 3-15. Belmont, CA: Wadsworth Cengage Learning.

Golbeck, S.L. (2001). Instructional Models for Early Childhood Education: In Search of a Child-Regulated\Teacher Guided Pedagogy. In S. Golbeck (Ed.). Psychological Perspectives of Early Childhood Education: Reframing Dilemmas in Research and Practice. Mahwah, New Jersey: Lawrence Erlbaum.

Haines, A. M. (1995). Montessori and Assessment: Some Issues of Assessment and Curriculum Reform. *The NAMTA Journal*, Vol. 20(2). Pp. 116-130.

Hainstock, E.G. (1997). The Essential Montessori. New York, NY: Plume Publishing.

Kahn, D. (1993). Montessori in the Public Schools: Implementation Basics. Cleveland, Oh: Montessori Public School Consortium.

Komolafe, A. T., Yara, P. O., Omitogun, I. (2015). Mathematics Learning, Montessori Approach to Teaching/Learning in Early Childhood Education: A Case Study of Ifo Local Government Area of Ogun State. *International Journal of Business, Humanities and Technology,* Vol .5 (6). Pp .45-54.

Ladson-Billings, G. (1995). "But that's just good teaching": The Case for Culturally Relevant Pedagogy." *Theory into Practice*, Vol 34 (3), pp. 159-165.

Lillard, A.S. (2013). Playful Learning and Montessori Education. *American Journal of Play*, Vol 5(2). Pp 157-179.

Lillard, A. & Else-Quest, N. (2006). The Early Years: Evaluating Montessori Education. *Science*, 313 (5795). Pp.1893-1894.

McKenzie, G.K. & Zascavage, V. (2012). Montessori Instruction: A Model for Inclusion in Early Childhood Classrooms and Beyond. *Montessori Life*. Vol 24 (1). Pp 20-25.

Ministry of Education, Ghana. (2002). Report of the President's Committee on Review of Education Reforms in Ghana (Anamuah-Mensah Report), Ministry of Education, Accra.

Montessori, M. (1966). The Secret of Childhood. New York, NY: Ballentine Books.

Orem, R.C. (1965). A Montessori Handbook. New York: G.P. Putman's Sons.

Pickering, J.S. (1992). Successful Applications of Montessori Methods with Children at Risk for Learning Disabilities. *Annals of Dyslexia*, Vol. 42 (1). Pp.90-109.

Povell, P. (2009). Montessori Comes to America. Lanham, MD: University Press of America.

Rambusch, N.M. (1962). Learning How to Learn: An American Approach to Montessori. New York, NY: Helicon Press.

Ryniker, D. H. & Shoho, A. R. (2001). Student Perceptions of their Elementary Classrooms: Montessori vs. Traditional Environment. *Montessori Life*, Winter, 45 -48.

Schonleber, N. (2011). Hawaiian culture-based education and the Montessori approach: Overlapping teaching practices, values, and worldview. *Journal of American Indian Education*, Vol. 50(3), 5–25.

Shivakumara, K., Dhiksha, J., Nagaraj, O. (2016). The Efficacy of Montessori and Traditional Method of Education on Self – Concept Development of Children. *International Journal of Educational Policy Research and Review*, Vol.3 (2). Pp.29-35.

Vettiveloo, R. (2008). A Critical Enquiry into the Implementation of the Montessori Teaching Method as a First Step towards Inclusive Practice in Early Childhood Settings Specifically in Developing Countries. *Contemporary Issues in Early Childhood*, Vol. 9(2). Pp. 179-181.